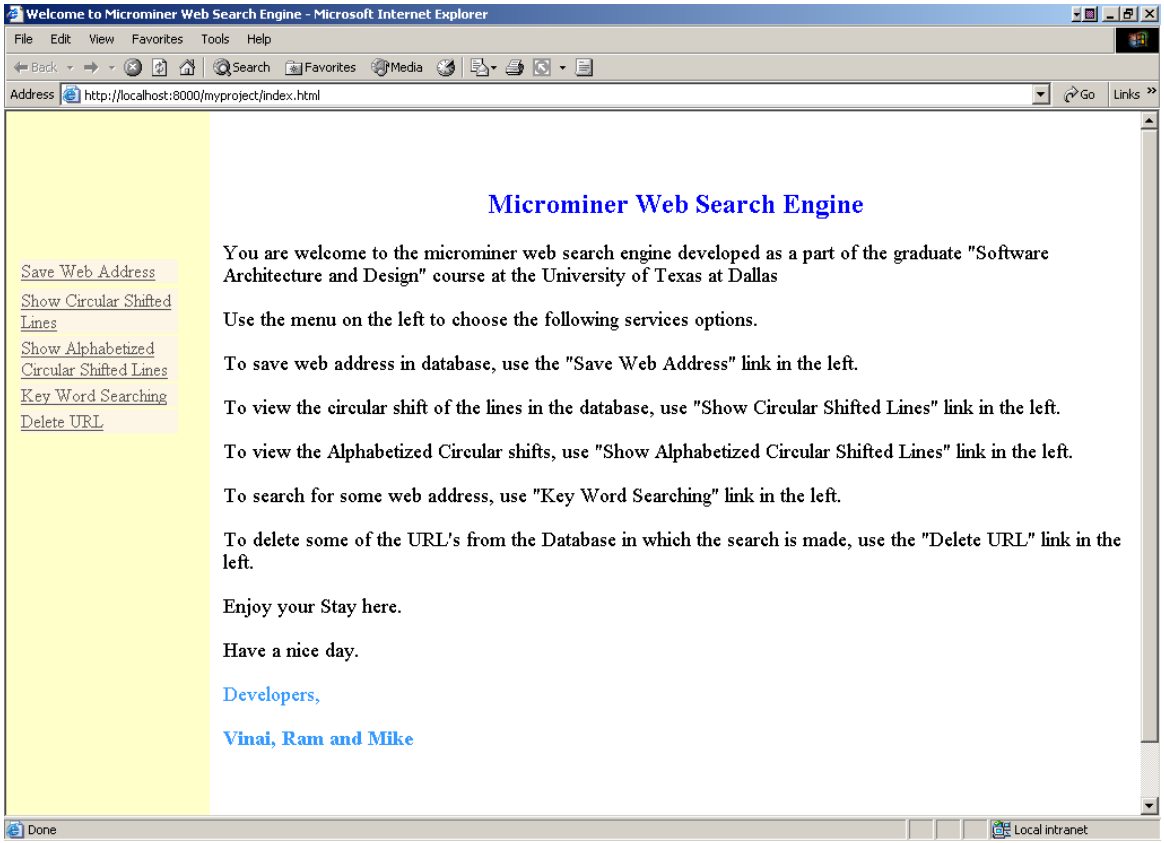
# User Manual

Our system is compatible with latest versions of Internet Explorer and Netscape/Mozilla.

**Steps to be followed when using our system**

When the user enters the system by entering the URL (http://localhost:8000/myproject) in this case he first sees the following page.

This is the welcome page of our Microminer System.

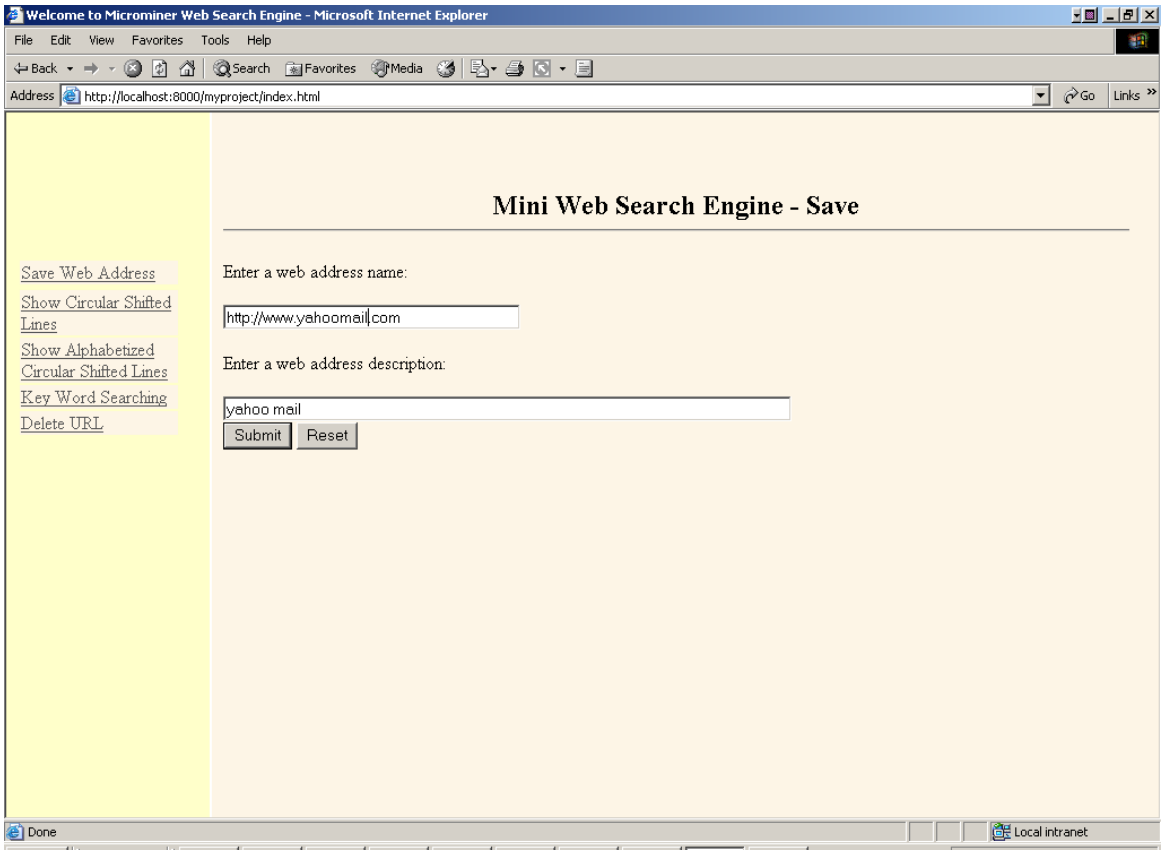

Welcome to Microminer Web Search Engine - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Search Favorites Media
Address http://localhost:8000/myproject/index.html
Go Links
Microminer Web Search Engine
Save Web Address
Show Circular Shifted Lines
Show Alphabetized Circular Shifted Lines
Key Word Searching
Delete URL
You are welcome to the microminer web search engine developed as a part of the graduate "Software Architecture and Design" course at the University of Texas at Dallas
Use the menu on the left to choose the following services options.
To save web address in database, use the "Save Web Address" link in the left.
To view the circular shift of the lines in the database, use "Show Circular Shifted Lines" link in the left.
To view the Alphabetized Circular shifts, use "Show Alphabetized Circular Shifted Lines" link in the left.
To search for some web address, use "Key Word Searching" link in the left.
To delete some of the URL's from the Database in which the search is made, use the "Delete URL" link in the left.
Enjoy your Stay here.
Have a nice day.
Developers,
Vinai, Ram and Mike
Done
Local intranet

In this page the user sees a welcome message followed by the set of functionality that is offered by our system. The links to be used for using the different functionalities of the system are clearly described in this page.

The following functionalities are offered

1. ***Save Web Address***

   This link is used by the user to enter new information into the database of the Microminer web search engine. The details entered will be used for look up during subsequent searches. A screen shot of the same will lokk as follows




The user is expected to enter the web address and the corresponding URL description in the respective textboxes respectively.

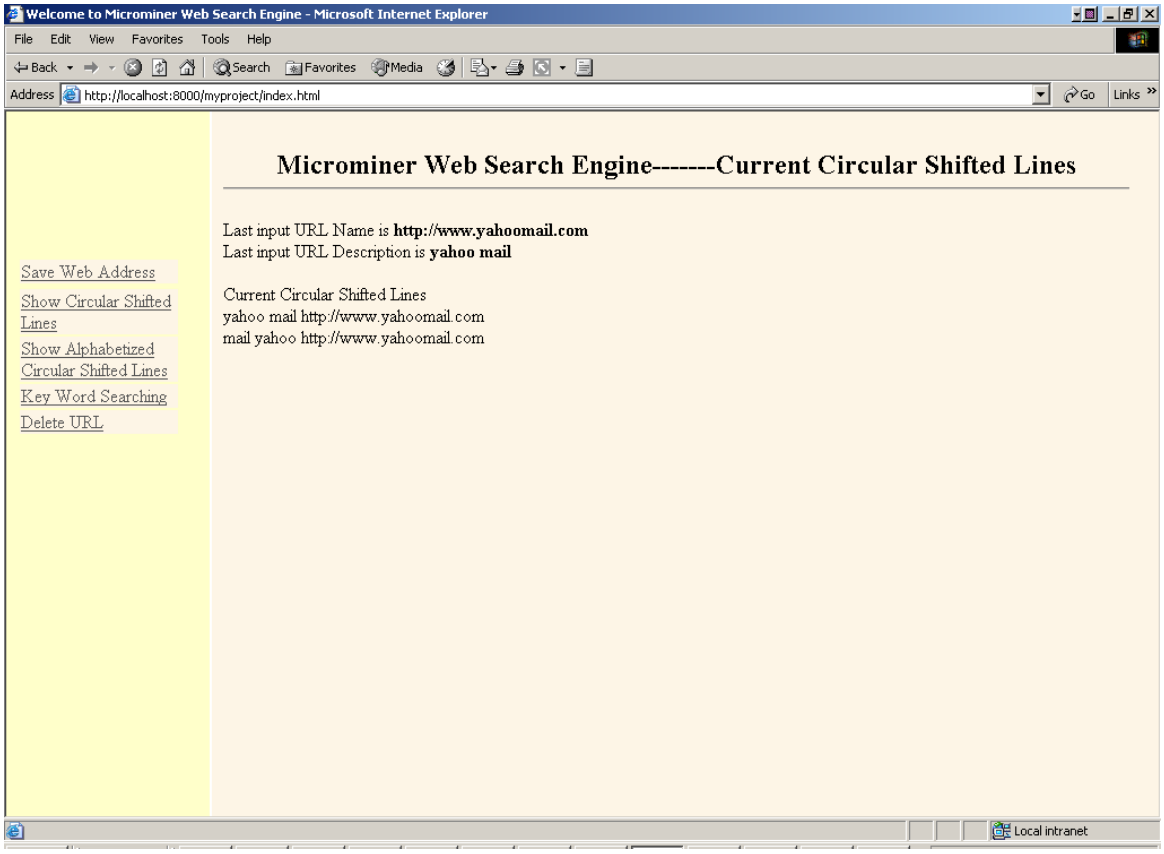
After entering the same he is expected to hit the submit button. If he wishes to enter more entries into the database he may follow the above process again.

The user can enter as many URL's as he wishes to. There is no bound on the number of entries the user can enter. As can be seen the above steps basically populate the database that's going to be used in future searches.

Note that the user can enter the entries at any instance of time. He may perform some searches and then add more entries. The system is flexible in this regard.

2. ***Show Circularly shifted lines***

The user can use this link to view the circularly shifted entries of the last line that was entered into the system.


Welcome to Microminer Web Search Engine - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://localhost:8000/myproject/index.html
Go Links
Microminer Web Search Engine-------Current Circular Shifted Lines
Last input URL Name is http://www.yahoomail.com
Last input URL Description is yahoo mail
Current Circular Shifted Lines
yahoo mail http://www.yahoomail.com
mail yahoo http://www.yahoomail.com
Save Web Address
Show Circular Shifted Lines
Show Alphabetized Circular Shifted Lines
Key Word Searching
Delete URL
Local intranet

By circular shifts we mean the following

That is if the URL description given to the system for the last URL is "God Bless America".

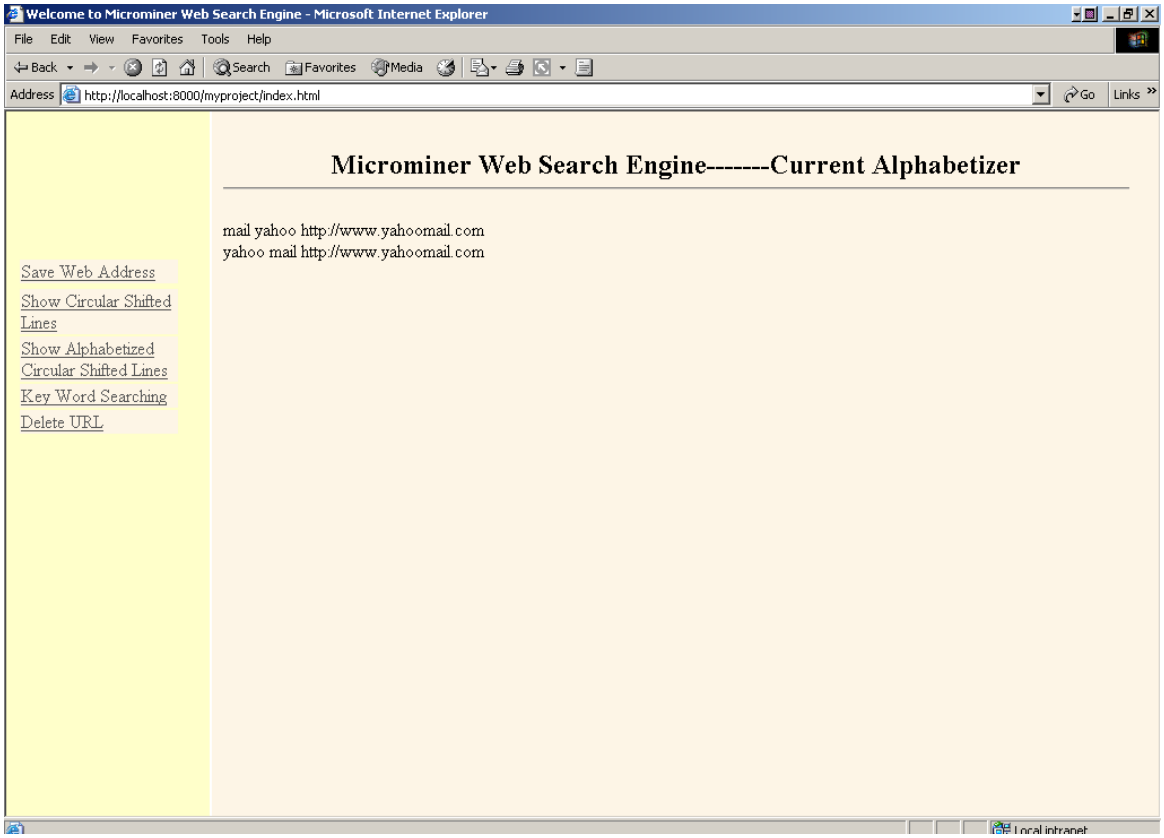
The circular shifts corresponding to the given line are the following

1. God bless America.
2. Bless God America
3. America God Bless

The output that the user sees when using this feature of our system will be like similar to what can be seen in the screen shot above.

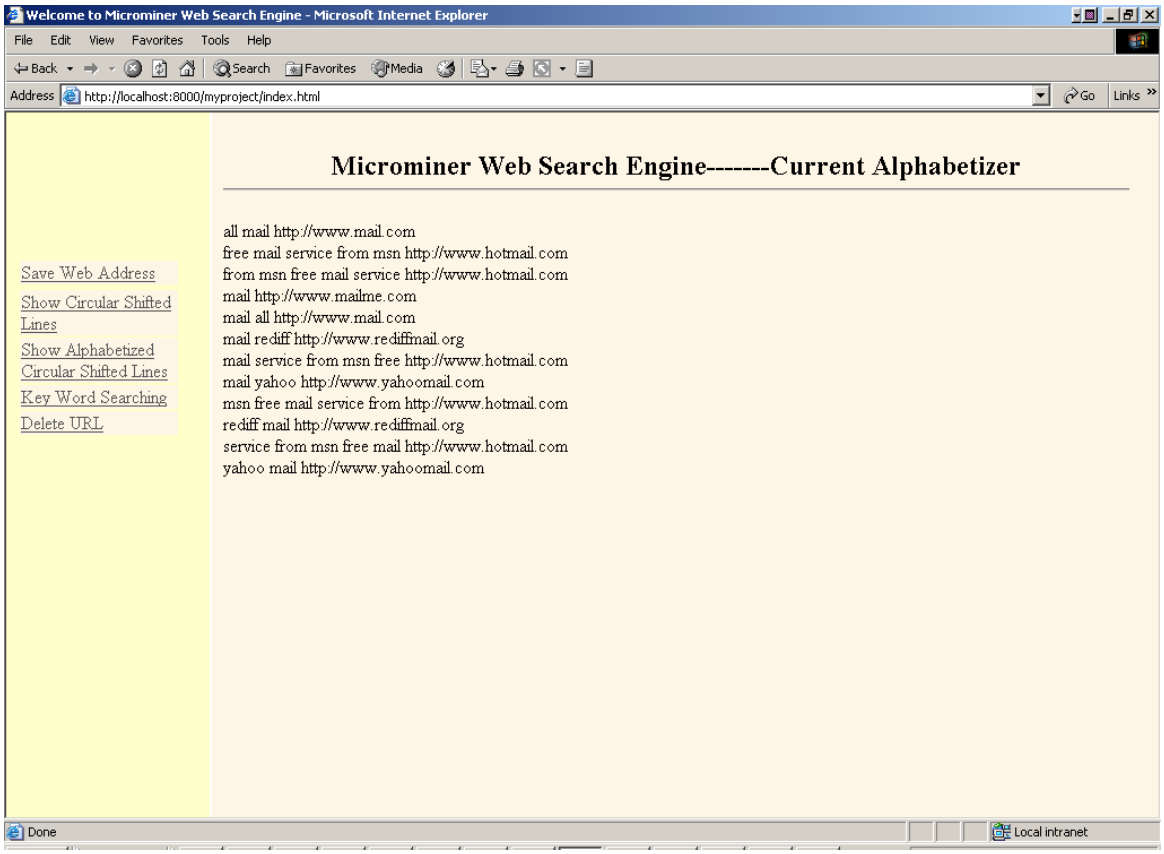
3. Show Alphabetized circular shifted lines

When the user uses this feature he will see a screen that looks like following




The contents of this page correspond to the alphabetized version of the circular shifts along with the URL's to which they correspond to.

After populating the database with more entries the output will be like the following screenshot.

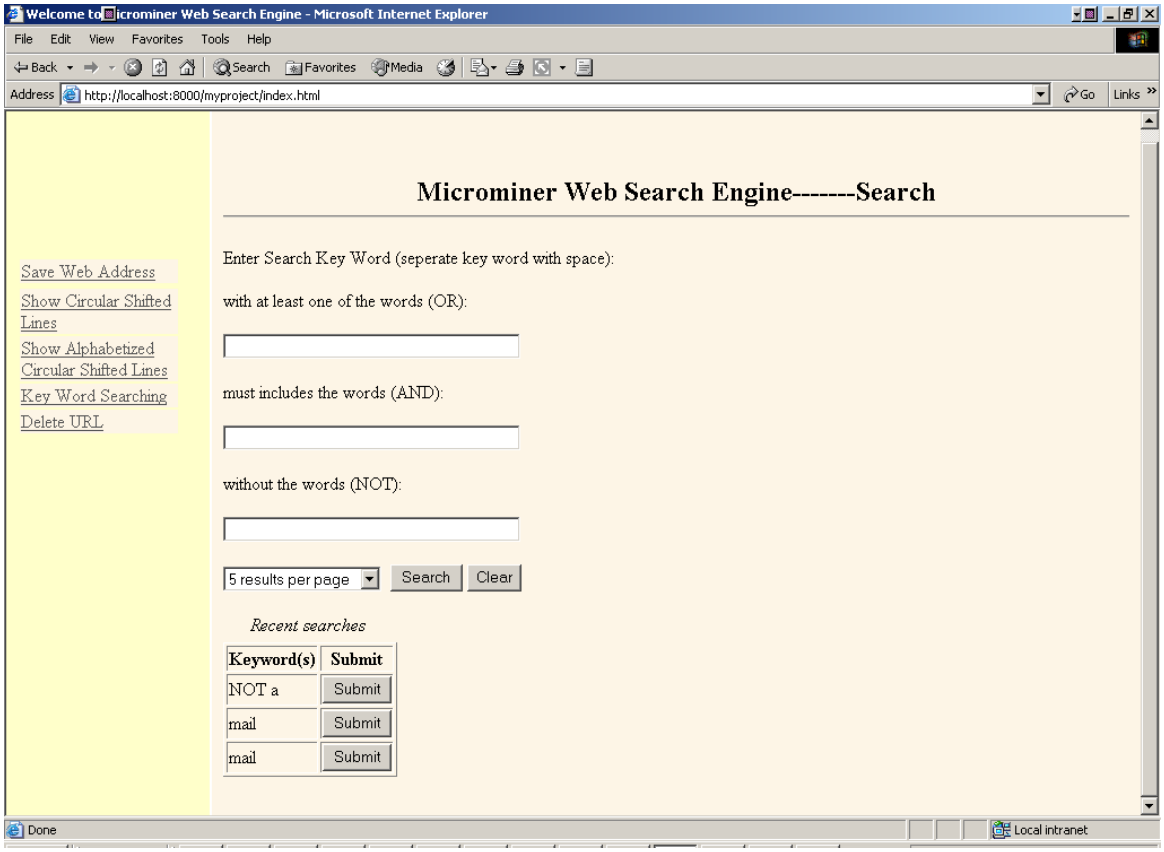

Welcome to Microminer Web Search Engine - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://localhost:8000/myproject/index.html
Go Links
Microminer Web Search Engine-------Current Alphabetizer
Save Web Address
Show Circular Shifted Lines
Show Alphabetized Circular Shifted Lines
Key Word Searching
Delete URL
all mail http://www.mail.com
free mail service from msn http://www.hotmail.com
from msn free mail service http://www.hotmail.com
mail http://www.mailme.com
mail all http://www.mail.com
mail rediff http://www.rediffmail.org
mail service from msn free http://www.hotmail.com
mail yahoo http://www.yahoomail.com
msn free mail service from http://www.hotmail.com
rediff mail http://www.rediffmail.org
service from msn free mail http://www.hotmail.com
yahoo mail http://www.yahoomail.com
Done
Local intranet

As can be seen the output in the above screen is alphabetically ordered with the corresponding set of URL's

4. Key Word Searching

This is where the user searches by entering the keywords and our system tries to match the same with the already existing entries(url descriptions) in the database.

The screen looks like the following




The delimiter that's to be used for separating the words that are to searched for in any of the searches is the space character. The system performs CASE SENSITIVE search.

There are three kinds of searches that can be performed in the database they are

- "OR" search

  In this case our search engine tries to search for any/all of the words that have been entered in the text box corresponding to the OR search.

- "AND" search

In this case our search engine tries to search for only the URL's that have all the words that were entered in this text box corresponding to the AND search.

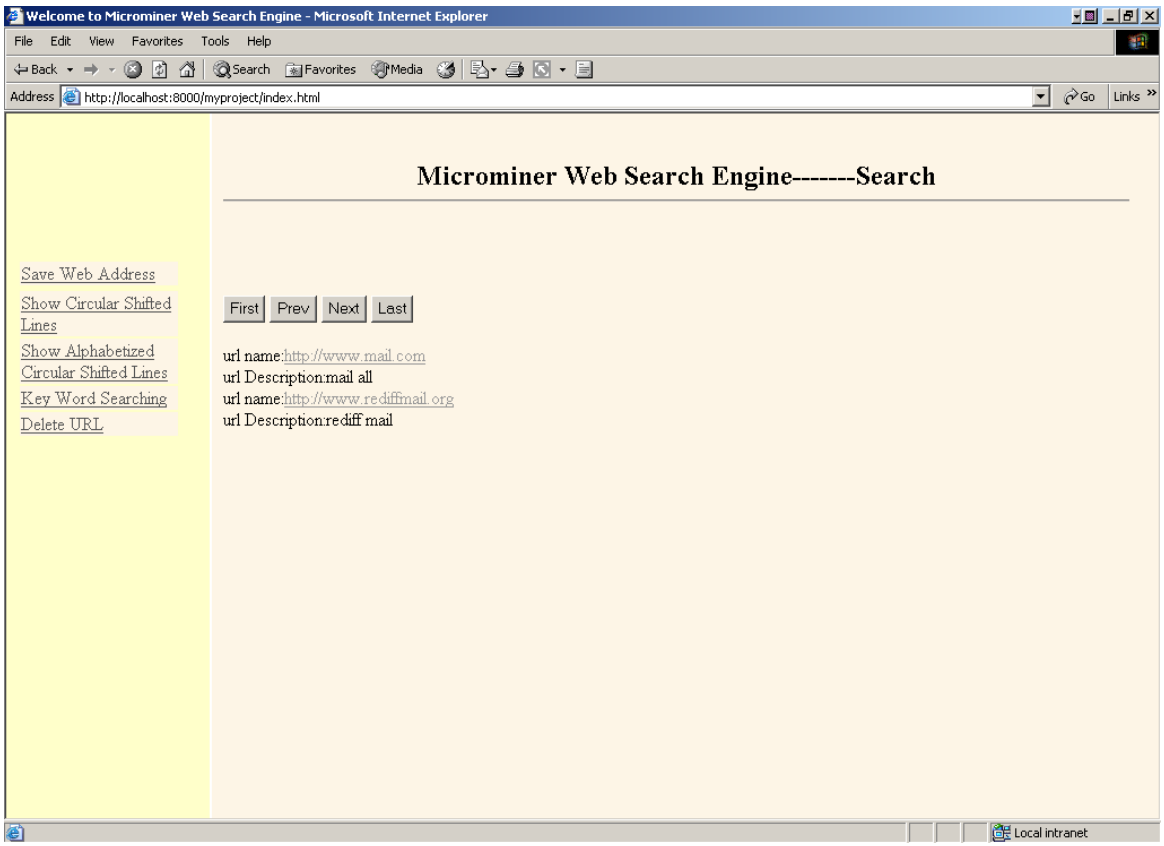
- "NOT" search

  In this case the search results corresponds to the list of URL's that do not contain the words that were entered in this text box in their description.

The user can use any combination of the above searches and the output that will be displayed will correspond to the set of URL's that satisfy the match combination that was used.

The user after entering the keys to be searched can select the number of search results that are to be displayed per page in the pages corresponding to the search results. E.g. 5 results per page means the search results will be displayed 5 at a time.

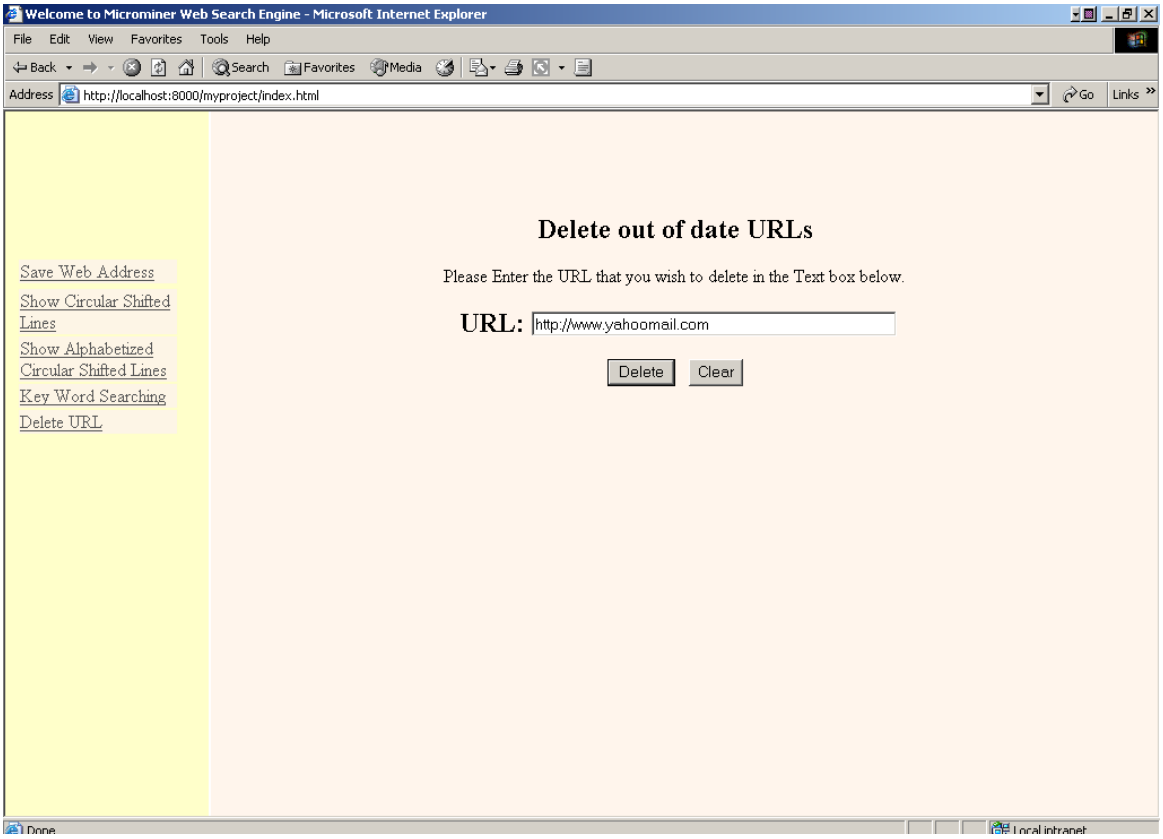
A sample search for "mail" will resulted in the following page




The user can click the "First", "Prev", "Next" and last buttons to navigate between the pages displayed. No buttons will be displayed if the search result has spans only one page. The button generation is dynamic.

5. Deletion of URL's

If the user wants to delete a URL for what so ever reason it may be he can do the same by using this feature. The reason may be something like the case in which a URL goes out of date and may correspond to a link which he wishes not to get displayed in future searches. The page displayed will be like the following


Welcome to Microminer Web Search Engine - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://localhost:8000/myproject/index.html
Go Links
Save Web Address
Show Circular Shifted Lines
Show Alphabetized Circular Shifted Lines
Key Word Searching
Delete URL
Delete out of date URLs
Please Enter the URL that you wish to delete in the Text box below.
URL: http://www.yahoomail.com
Delete Clear
Done
Local intranet

The user can enter the URL which he wishes to delete in the text box that asks for the URL and then he will press the delete button to delete the URL from the search database. The URL together with its description will be deleted and will not show up in future searches.

If the user gives a URL with an improper syntax or which is not present in the database a corresponding error message is generated.

Please note that at any instance of time the user is free to use any of the functionalities provided at any instance of time by selecting the appropriate link at the left. The above sequence was used for clarity and is NOT a necessity imposed by our system.

Have fun using the system. Fell free to contact us if you need any help.

Have a nice day.